Epidemiology of Injuries Sustained as a Result of Intentional Player Contact in High School Football, Ice Hockey, and Lacrosse, 2006-2015

INTRODUCTION

Recent concerns regarding athlete safety have threatened to slow the growth of high school athletic participation, including football. A concern that is receiving increasing attention is the impact of injury among athletes.カ(Kerr, Collins, Fields, & Comstock, 2015) The national football, basketball, and lacrosse seasons in the United States are among the most dangerous sports available to high school athletes. A consideration for all sports, football is the most popular high school boys’ program in the United States. (National Federation of State High School Associations) In addition, both lacrosse and ice hockey popularity continues to be evident with 205,522 and 35,155 participants respectively in 2015-2016. Despite these concerns, poorly published research has focused on football players, the number of boys participating in 13-15-player football has dropped nearly 20% from the 2015 to 2023. (National Federation of State High School Associations) Of all sports, football is the most popular high school boys’ program in the United States. (National Federation of State High School Associations). Adolescents are possibly at greater risk for serious injury due to the increased size in the population, strength, and impact force. (Kerr, Collins, Fields, & Comstock, 2011) (Emsley, Moseau, & Hartman, 2005; Latimer, 2003) (Fields, Fujiwara, & Comstock, 2011) Although American football allows for increased player contact, such is the case in football, ice hockey, and lacrosse, the risk for player-player contact injuries increases. (Lattar, 1983)

Player-player contact represents 46.4% of all high school sports injuries and is thus the most common mechanism of injury among athletes. (Kerr, Collins, Fields, & Comstock, 2015) In 2011, it was reported that the highest player-player injury contact rate, with tackling/being tackled as accounting for 69.1% of football injuries. (Kerr, Collins, Fields, & Comstock, 2015) (National Federation of State High School Associations). Body checking is the reported mechanism of injury in 46.6% of injuries and most of which are due to tackling, checking, or being tackled or checked. (Dick, Romani, 2015) Injuries continue to be a significant concern given the popularity and extrinsic physical nature of these sports. Researchers comparing player-checker injuries among high school sports with varying levels of contact contexts to be limited; hindering the development of sport-specific prevention strategies. Although several studies have described contact-related injuries in high school sports, most studies have focused on an individual sport. (Dick, Romani, Agel, Case, & Marshland, 2007) (Melts, Sommerfieldt, Best, Collins, & Flangan, 2013)(Shiue, Collins, Liu, & Comstock, 2014) In addition to studying the effects of sport contact on injuries, it is also important to examine the effects of the sport context on injuries. (Kerr, Collins, Fields, & Comstock, 2014)

Existing studies on high school football have focused on injuries resulting from tackling and being tackled while playing the sport. (Xiang, Collins, Liu, McKenzie, & Comstock, 2014) Injuries continue to be a significant concern given the popularity and extrinsic physical nature of these sports. Researchers comparing player-checker injuries among high school sports with varying levels of contact contexts to be limited; hindering the development of sport-specific prevention strategies. Although several studies have described contact-related injuries in high school sports, most studies have focused on an individual sport. (Dick, Romani, Agel, Case, & Marshland, 2007) (Melts, Sommerfieldt, Best, Collins, & Flangan, 2013)(Shiue, Collins, Liu, & Comstock, 2014) In addition to studying the effects of sport contact on injuries, it is also important to examine the effects of the sport context on injuries. (Kerr, Collins, Fields, & Comstock, 2014)

RESULTS

Overall

A total of 54,532 injuries were sustained as a result of intentional player contact in boys’ football, ice hockey, and lacrosse to occur at a rate of 3.8 injuries per 1000 APY. (Comstock, 2011) The three sports had the highest injury rates of 4.8 (%), (6.2%), and (3.4%) for football, basketball, and lacrosse respectively. (Dick, Romani, 2015) From this study, it was also determined that football has the highest rate of concussions resulting from tackling/being tackled (1.6%). (Dick, Romani, 2015) In this study, the rate of concussions resulting from tackling/being tackled was found to be 2.1 times higher than that of basketball, 3.2 times higher than that of lacrosse, and 2.5 times higher than that of basketball. (Dick, Romani, 2015)

DISCUSSION

REFERENCES

CONCLUSIONS

Understanding rates and patterns of such injuries is particularly important given the growing concerns regarding the safety of high school athletes and the potential for long-term complications. Future studies are needed to further investigate these patterns in high school male athletes, with particular emphasis placed on the lower injury rates in boys participating in these 3 sports. The findings from this study provide valuable information for the development of appropriate prevention strategies and the need for further research.